

REMARKS

Reconsideration and allowance are respectfully requested in view of the following remarks.

Claims 1-69 are currently pending in the application. By this Amendment, claims 63-69 have been added.

Claims 1-3, 5-10, 12-18, 20-30, 32-37, 39-45, and 47-62 are rejected under 35 U.S.C. §102(b) by Schneider, U.S. Patent No. 3,870,085 ("the '085 patent"). This rejection is respectfully traversed.

Claim 1 is directed to a seal apparatus for sealing a portion of a fluid vessel. The apparatus comprises an inflatable and collapsible enclosed structure constructed and arranged to transition between an inflated configuration and a collapsed configuration when pressurized fluid is received therein and released therefrom, respectively. At least one seal member protrudes from an outer surface of the enclosed structure. The seal member is constructed and arranged to engage an inner surface of the fluid vessel to form a fluid-tight seal between the inner surface and the outer surface of the enclosed structure when the enclosed structure is disposed therein and pressurized to substantially the inflated configuration.

Schneider does not disclose the seal apparatus as recited in claim 1, and in particular does not disclose the "at least one seal member protruding from an outer surface of the enclosed structure" required by claim 1. As shown in Figs. 1-2 and column 2, lines 20-35, the '085 patent discloses an expandable plug that includes a cylindrical expandable member 10 having thickened end sections 11 that are secured to a tubular core 14. An opening 27 is formed in the tubular core 14 so that air can flow into the cylindrical expandable member 10 so as to inflate the same to the position shown in broken lines in Fig. 1 where it will move into sealing engagement with the inner walls of a sewer pipe P. As shown in Fig. 2, the cylindrical expandable member 10 has longitudinally extending folded sections 28 that enable the cylindrical expandable member 10 to expand from the size and shape shown in Figs. 1 and 2 to that shown by the broken line outline in Fig. 1.

However, the '085 patent does not disclose any seal member protruding from the outer surface of its inflatable and collapsible structure, as is specifically required by claim 1. This seal member is recited in claim 1 as protruding from the outer surface of the apparatus's inflatable and collapsible structure. Also, the seal member is constructed and arranged to engage an inner surface of the fluid vessel to form a fluid-tight seal between the inner surface

and the outer surface of the enclosed structure when the enclosed structure is disposed therein and pressurized to its substantially inflated configuration. In the '085 patent, the outer surface of the expandable member 10 engages the sewer pipe P, but the '085 patent does not disclose a seal member that protrudes from the outer surface of the expandable member to form a fluid-tight seal with the sewer pipe P.

It appears that the Examiner may be interpreting the raised areas of the folded sections 28 shown in the Figures of the '085 patent as being seal members. However, the specification quite clearly describes these regions as folded sections of the expandable member that permit expansion (see column 2, line 28-35). The Applicant submits that the proper understanding of this teaching is that the folded sections will unfold to permit expansion of the inflatable member. This can be appreciated from the broken lines illustrating the inflatable structure in its inflated configuration, as clearly no protruding seal members are shown in the inflated configuration. Claim 1, in direct contrast, specifically requires that its seal member engage the vessel's inner surface when the inflatable and collapsible structure is pressurized.

as if claimed

Thus, the Examiner should readily appreciate that the '085 patent fails to teach or suggest the use of any protruding seal member. Accordingly, withdrawal of the rejection of claim 1 is respectfully requested.

Claims 2-27 depend from claim 1 and are submitted to be allowable based on that dependency and for their recitation of additional patentable subject matter.

Claim 28 should be allowable for at least the reasons noted above with respect to claim 1. That is, Schneider does not disclose a fluid vessel that includes at least one seal member provided on an outer surface of the enclosed structure and engaged with an inner surface of a wall to provide a fluid-tight seal therebetween, as recited in claim 28. Accordingly, withdrawal of the rejection of claim 28 is respectfully requested.

main

Claims 29-57 are submitted to be allowable by virtue of their dependence on claim 28 and for their recitation of additional patentable subject matter.

Claim 58 is directed to a method for sealing a portion of a fluid vessel, the fluid vessel including a vessel body having a wall bounding an interior space for receiving a fluid. The method comprises disposing an inflatable and collapsible enclosed structure in a deflated or partially inflated configuration within the interior space, and inflating the enclosed structure to an inflated configuration so as to engage at least one seal member provided on the outer

surface of the enclosed structure with an inner surface of the wall to provide a fluid-tight seal therebetween.

Schneider does not disclose a method for sealing a portion of a fluid vessel, as recited in claim 58. As noted above with respect to claims 1 and 28, Schneider does not disclose at least one seal member provided on the outer surface of the enclosed structure. Accordingly, Schneider does not disclose a method that includes inflating the enclosed structure to an inflated configuration so as to engage at least one seal member provided on the outer surface of the enclosed structure with an inner surface of the wall to provide a fluid-tight seal therebetween, as recited in claim 58. Accordingly, withdrawal of the rejection of claim 58 is respectfully requested.

Claims 59-62 are submitted to be allowable by virtue of their dependence on claim 58 and for their recitation of additional patentable subject matter.

New claims 63-69 have been added and set forth features clearly not taught by Schneider. Entry and allowance of these new claims is respectfully requested.

All rejections have been addressed. It is respectfully submitted that the present application is in condition for allowance, and a notice to that effect is earnestly solicited.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Should there be any questions or concerns regarding this application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,

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